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ABSTRACT

The theory of achievement motivation with 2 modification involving future orientation, was used to predict that: (a) subjects who perceive a course examination to have future implications should perform better than those who do not; (b) Highly anxious subjects who perceive the course examination to have future implications should persist longer at the task than low anxious subjects who are also future oriented; and (c) these predicted differences are intensified in the group that perceives the course as important and attenuated in the group that does not. The persistency hypothesis was supported, but the performance hypothesis was not. The third hypothesis was only partially supported. (Author)

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The Effects of Test Anxiety, Course Importance, and  
Future Orientation on Persistence and Academic Performance

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Atkinson and Litwin (1960) reported that low test anxious subjects persisted longer at a final examination than high test anxious subjects, and that subjects low in test anxiety worked more efficiently (made higher grades) than subjects who were high in test anxiety. The authors concluded that this was in accordance with the theory of achievement motivation as proposed by Atkinson (1958) in that high test anxious individuals find all achievement oriented tasks unpleasant, especially those tasks which the individual perceives to be of intermediate difficulty. To reduce the aversiveness of such situations these individuals have essentially one option available--to flee from the situation as soon as possible. Due to constraining forces such as social pressure the individual will remain in the field only for the time required to complete the task, and because of competing tendencies, he will perform inefficiently.

The conclusion concerning efficiency of performance as based on the theory of achievement motivation seems well founded. But, work by Feather over a period of several years

(partially summarized in Atkinson and Feather, 1966) has pointed out that several factors must be known (or controlled) before an accurate prediction concerning task persistence can be made. These factors include; motives aroused by the task but extrinsic to achievement concerns, the subjective probability of success at the task, and the subjective probability of performing alternative tasks. Since the Atkinson and Litwin study did not take these factors into account, the significant confirmation of the persistency hypothesis may be looked upon as serendipitous.

The theory of achievement motivation has undergone development since the version employed by Atkinson and Litwin in 1958 (see Atkinson and Feather, 1966, Ch. 20) and most recently an elaborated version of the theory of achievement motivation has been proposed by Raynor (1969) incorporating future orientation. It is the purpose of this study to investigate task persistence, final course grades, and subjects' ratings of course importance in light of the elaborated theory.

The elaborated theory of achievement motivation (Raynor, 1969) hypothesizes that an individual may perceive a task about to be undertaken as one step in a contingency path leading to other achievement goals. These future anticipated achievement incentives augment the motivation aroused to undertake the present achievement task. Therefore, individuals who are already predisposed to do well at an achievement task (subjects low in test anxiety) should be further motivated to perform well, if they perceive the present task to have future

implications. On the other hand, individuals who are pre-disposed to doing poorly (subjects high in test anxiety) should be further inhibited if the present task is perceived to have future achievement consequences. However, the elaborated theory also points out that not all perceived future goals are achievement-oriented. In addition to the achievement motive, the individual may perceive the present achievement task to be in a contingency path leading to positive extrinsic incentives such as affiliation, approval, and money. Such additional extrinsic incentives could completely ameliorate the inhibition in performance experienced by the high test anxious subjects.

Applying the elaborated theory, a study by Raynor (1970) has shown that subjects who perceive a psychology course to have future implications received higher grades than subjects who did not hold such perceptions.

Thus, it can be predicted that subjects who perceive an achievement task (e.g., course examination) to have future implications should perform better than those who do not. Furthermore, it should be the low anxious subjects who receive the greatest increment to perform well.

It can also be predicted that subjects who are low anxious and perceive the achievement task to have future implications should study more and therefore, view the task as relatively easy. Those subjects who are high anxious and perceive the course as having future achievement consequences should be inhibited the most, study least, and view the task

as very difficult. Thus, in line with the work by Feather (Atkinson and Feather, 1966) and the elaborated theory it is predicted that highly anxious subjects who perceive the achievement task (course examination) to have future implications will persist longer at the task than low anxious subjects who are also future oriented.

Finally, it is hypothesized that high course importance should intensify the predicted differences while low course importance should tend to attenuate the predicted differences. These then are the specific hypotheses to be tested in the present study.

#### Procedure.

Male students in an Educational Psychology class were informed before the final examination that two experimental points could be earned if they volunteered to fill out two questionnaires immediately after completing the examination. Almost all the males in the class chose to participate. The number of subjects presented in the analysis is 36.

As the subjects turned in their final examinations at the front desk they were free to pick up copies of the questionnaires if they wished to participate. The Test Anxiety Questionnaire (TAQ) (Mandler and Sarason, 1952) was used as the measure of test anxiety. The Long Term Involvement questionnaire (LTI) (Raynor, 1969) assessed future orientation. The subjects were requested to put their names on both questionnaires and to read the instructions carefully.

There was no time limit imposed on the completion of these questionnaires. On the average, the subjects took from 10-15 minutes to complete them. The questionnaires were scored according to the literature pertinent to each.

As the final examinations were turned in, the experimenter took great care that the order in which they were turned in was preserved. The first paper turned in received a rank of 1, the second a rank of 2, and so forth until each paper had been assigned a rank corresponding to the order in which it had been received.

The final course grade was also a variable in the study. The letter grade each student received was transformed to a number in the following manner; A = 4, B = 3, C = 2, D = 1, and F = 0.

### Results and Discussion.

High and low TAQ and LTI groups were formed by using median splits. In the method described by Hays (1963), the mean square error was computed and planned comparisons were performed independently for each of the two dependent variables.

In Table I, the mean ranks and final course grades for all 36 subjects are presented across all TAQ and LTI levels. It can be seen that the persistence hypothesis has been supported. Within the high LTI subjects, those high in TAQ persisted significantly longer at the final examination than those low in TAQ ( $t_{32df} = 1.92, p < .05$ ). No significant

difference in the ranks was found between high and low TAQ subjects within the low LTI group. But, counter to prediction, was the finding that subjects who were low in LTI received higher final grades than those high in LTI within the low TAQ group ( $t_{32df} = 1.84, p < .05$ ). For the high TAQ group, no significant difference was found between high and low LTI people. Perhaps extrinsic incentives attenuated the LTI effects in this group.

The sample was then divided into those who perceived the course as relatively important and those who perceived the course as relatively less important. Table II presents the means for those subjects who perceived the course to be relatively important. Again the persistence hypothesis was confirmed, subjects high in TAQ persisted longer at the final examination than those low in TAQ within the high LTI group ( $t_{10df} = 2.22, p < .05$ ). The difference in ranks between high and low TAQ subjects within the low LTI group was not significant. Within the low TAQ group, counter to prediction, subjects low in LTI received higher final grades than those high in LTI ( $t_{10df} = 2.40, p < .025$ ). No difference in grades existed within the high TAQ group. Once again, extrinsic incentives may have attenuated the difference.

Table III shows the means for those subjects who perceived the course as less important. None of the differences for rank or final course grade reached acceptable levels of significance. Therefore, the assumption that high course importance increases the differences was partially supported.

While low anxious subjects tended to get higher grades than high anxious subjects, it was the low rather than the high LTI individuals who received the better final course grade. The course involved is Educational Psychology, one which traditionally is not considered relevant to long term job success by students. Hence, it is possible that although the high LTI students do tend to perceive achievement tasks as having future consequences, in this case, Educational Psychology did not have much future implications for many of them. This could explain why the low rather than high LTI subjects received higher grades. The high LTI subjects are annoyed that the task they have to work on appears to have no future implication and thus, they do less well than low LTI subjects who have no such concern.



Table I.

Mean Rank And Final Course Grade Across TAQ And LTI.

TAQ	LTI	N	Rank	Final Course Grade
High	High	10	52.7	2.00
High	Low	8	47.1	2.38
Low	High	11	27.5	2.00
Low	Low	7	52.4	2.86

Table II.

Mean Rank And Final Course Grade Across TAQ And LTI For Individuals Who Rate The Course Relatively Important.

TAQ	LTI	N	Rank	Final Course Grade
High	High	2	73.5	3.00
High	Low	3	42.7	2.67
Low	High	5	19.2	1.40
Low	Low	3	50.0	3.00

Table III.

Mean Rank And Final Course Grade Across TAQ And LTI For Individuals Who Rate The Course Relatively Unimportant.

TAQ	LTI	N	Rank	Final Course Grade
High	High	7	43.4	1.57
High	Low	3	58.3	2.67
Low	High	6	34.0	2.50
Low	Low	4	54.3	2.75

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